Development of a Multipurpose Extruder/Press Food Processing System, Phase II
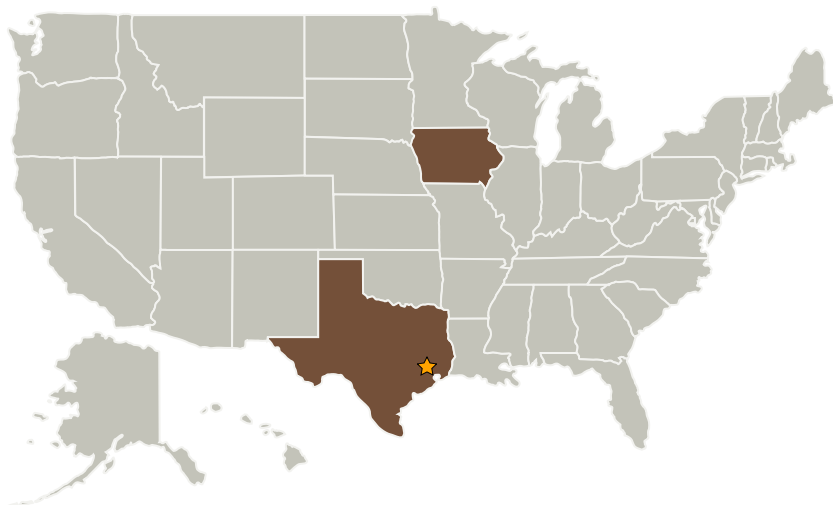
Completed Technology Project (2006 - 2008)

Project Introduction

This project is to develop versatile, low mass, energy efficient, and easily maintained multipurpose seed processing (MSP) equipment for food processing in space environments. Phase-1 of the project yielded a conceptual drawing for a MSP. Phase-II consists of six main tasks. The first model MSP will be manufactured, programmed and tested for ESM, function, and quality of processed product. The data will be used to refine the model and design multipurpose screws for the extrusion and press components of the MSP to simplify the equipment. Several models of MSP's will be fabricated and tested for versatility. The ESM crietia and functional parameters will be used to evaluate the optimum MSP for NASA applications and non-NASA applications. The final deliverables will be the test database, design drawings and the optimized MSP's for NASA and non-NASA applications.

Primary U.S. Work Locations and Key Partners

Organizations Performing Work	Role	Type	Location
⭐Johnson Space Center(JSC)	Lead Organization	NASA Center	Houston, Texas
Triple F, Inc.	Supporting Organization	Industry	Des Moines, Iowa

Development of a Multipurpose Extruder/Press Food Processing System, Phase II

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Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Johnson Space Center (JSC)

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

For more information and an accessible alternative, please visit:
https://techport.nasa.gov/view/5730

Primary U.S. Work Locations	
Iowa	Texas

Project Transitions

▶ **January 2006:** Project Start

✔ **January 2008:** Closed out

Project Management

Program Director:

Jason L Kessler

Program Manager:

Carlos Torrez

Technology Areas

Primary:

- TX11 Software, Modeling, Simulation, and Information Processing
  └ TX11.2 Modeling
    └ TX11.2.3 Human-System Performance Modeling